# Koch, Kristine

Subject:

From: Koch, Kristine

Sent: Monday, December 21, 2015 3:46 PM

To: Gene Revelas

Cc: Wyatt, Robert; jim.mckenna@verdantllc.com; pdost@pearllegalgroup.com; Jennifer

Woronets (jworonets@anchorqea.com)
RE: [External]Portland Harbor RI Question

Thanks Gene. I'll make that correction.

Kristine Koch Remedial Project Manager USEPA, Office of Environmental Cleanup

U. S. Environmental Protection Agency Region 10 1200 Sixth Avenue, Suite 900, M/S ECL-122 Seattle, Washington 98101-3140

(206)553-6705 (206)553-8581 (fax)

1-800-424-4372 extension 6705 (M-F, 8-4 Pacific Time, only)

From: Gene Revelas [mailto:grevelas@integral-corp.com]

**Sent:** Monday, December 21, 2015 3:12 PM **To:** Koch, Kristine < Koch.Kristine@epa.gov>

Cc: Wyatt, Robert <rjw@nwnatural.com>; jim.mckenna@verdantllc.com; pdost@pearllegalgroup.com; Jennifer

Woronets (jworonets@anchorgea.com) < jworonets@anchorgea.com>

Subject: FW: [External]Portland Harbor RI Question

### Hi Kristine -

There is a typo in the first discharge number in the sentence that you note. The mean value for the discharge at RM 12.8 should be 111,500 cfs, not 11,500 cfs, per the communications we had with USGS in 2013 in response to this EPA comment on the 2011 RI report. Our email exchange with USGS (Tamara Wood and Roy Wellman) is pasted in below. The attached .pdf is the USGS data sheet that they provided with the data in question.

#### Thanks,

#### Gene

Gene Revelas | Senior Managing Scientist
Integral Consulting Inc. | www.integral-corp.com
1205 West Bay Drive NW | Olympia, WA 98502

Tel: 360.705.3534, ext. 418 | Cell: 360.870.4950 | Fax: 360.705.3669

From: Wood, Tamara [mailto:tmwood@usqs.gov]

Sent: Friday, April 05, 2013 9:02 AM

To: Sue Trevathan

Subject: Fwd: Willamette River-Velocity data request

Hi Sue,

We have retrieved the data that you reference above. Because our processing and archival techniques have evolved since those measurements were first done, the head of our field office, Roy Wellman, who was also involved in collecting the data, redid the processing and summarizes the results in the e-mail that I am forwarding. We were not entirely clear on what you were asking for, but his text summarizes the measurement at the Morrison Bridge. Note that he emphasizes that this is an "instantaneous" measurement (more accurate than "isolated" as in your text) and without context because there was no index site at the Morrison at that time. The e-mail text is probably more understandable than the pdf file attached. As indicated, if you want the other data near St. Johns as well, we can get that.

-Tammy

Tamara Wood Hydrologist USGS Oregon Water Science Center 2130 SW 5th Ave. Portland, OR 97201

----- Forwarded message ------

From: Wellman, Roy < <a href="mailto:rwellman@usgs.gov">rwellman@usgs.gov</a>>

Date: Thu, Apr 4, 2013 at 6:04 PM

Subject: Willamette River-Velocity data request

To: Tamara Wood < tmwood@usgs.gov>

## Tammy,

I've been able to recover the original field notes and the raw ADCP data files for the discharge measurement collected on Jan. 14, 2000 on the Willamette River, downtown. The data was collected downstream of the Morrison bridge. From what I can figure out, the cross section was approximately where to current water quality sampling is being collected.

From May 1995 through March 2003 the Morrison Bridge gage did not have a velocity record. The current equipment was installed and began collecting data in April 2003.

For the discharge measurement of Jan. 14, 2000, data collection was from 13:08 hrs to 13:42 hrs. During that time period tidal controlled gage height were on the outgoing tide, ranging from 9.61 ft. at 12:30 to 9.50 ft. at 14:00. Measured mean velocity for the cross section ranged from 2.59 ft/s to 2.73 ft/s and measured discharge ranged from 109, 700 cfs to 114,500 cfs. The mean discharge and mean velocity were: 111,500 cfs and 2.65 ft/s.

A second discharge measurement was collected downstream of the St. John's bridge but upstream of Multnomah Channel from 15:25 hrs to 16:30 hrs. If that data is requested let me know and I'll process it also.

I emphasize that these are 'instantaneous' data in a constantly changing tidal river, and are not representative of any peak 'event' or representative of a mean value for the duration of an 'event'.

I've included a summary of the Morrison Bridge measurement as a .pdf file, attached below

### Roy

Roy Wellman Supervisory Hydrologic Technician U.S. Geological Survey 2130 SW 5th Avenue Portland, Oregon 97201 503-251-3295 (W) 503-730-6704 (C) From: Koch, Kristine [Koch.Kristine@epa.gov] Sent: Monday, December 21, 2015 10:24 AM

To: Jim McKenna (jim.mckenna@verdantllc.com); Wyatt, Robert

Cc: Jen Woronets

Subject: [External]Portland Harbor RI Question

Jim and Bob – In reviewing the RI, I ran across a sentence that did not make sense. It is in Section 3 on page 3-22, Section 3.1.4.3.2, Second paragraph, last sentence. It states that "Mean velocity and discharge at RM 12.8<sup>[1]</sup> were 2.65 ft/s and 11,500 cfs respectively, and 1.41 ft/s and 118,300 cfs at RM 4.1" The second discharge value (118,200 cfs) does not make sense. Please verify that this number is correct.

Thanks,

Kristine Koch Remedial Project Manager USEPA, Office of Environmental Cleanup

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Data collection was from 13:08 hrs. to 13:42 hrs.